United States Government **Department of Energy**

memorandum

Idaho Operations Office

Date: December 12, 2000

Subject: National Spent Nuclear Fuel Program November 6-8, 2000, Strategy Meeting (EM-NPD-00-041)

To: Distribution

The semi-annual NSNFP Strategy meeting was held at the Riviera Hotel in Las Vegas, Nevada, on November 6-8, 2000. The following were represented:

DOE-HQ	OCRWM	BAPL
DOE-ID	INEEL	ANL
DOE-RL	ORNL	SNL
DOE-SRS	Hanford	PNNL
NSNFP	SRS	AECL

The NSNFP Strategy meeting is held twice a year to update the participants on the status of the proposed Yucca Mountain Repository; to identify issues relative to preparing the DOE-owned SNF for repository placement; to share knowledge and experience; and to strengthen communication between the above organizations.

The meeting was very informative and successful due to your attendance and participation. The next meeting will tentatively be held in Idaho Falls, Idaho, on Tuesday and Wednesday, June 26–27, 2001.

The meeting agenda, action items, issues, and summary of discussions are attached.

If you have questions, comments, or additional issues please contact me at (208) 526-1510.

Mark R. Arenaz, Manager
National Spent Nuclear Fuel Program

Attachment

NATIONAL SPENT NUCLEAR FUEL PROGRAM STRATEGY MEETING
NOVEMBER 6-8, 2000
RIVIERA HOTEL, LAS VEGAS, NEVADA

AGENDA

Monday, November 6

2:00	Welcome/Introductions	Mark Arenaz/Andy Griffith
2:15	EM Opening Remarks	Patrice Bubar
2:45	RW Opening Remarks	Paul Harrington
3:00	SNF Site Issues, Activities, Strategies	
	3:00 Hanford	Bob Holt
	3:20 INEEL	Mary Willcox
	4:00 SRS	Jean Ridley
	4:30 ANL-W	Bob Benedict
5:00	Yucca Mountain Schedule and Path Forward	Marty Bryant
5:10	WASRD Discussion	Markus Popa
5:30	First Day Wrap-up and Adjourn	Mark Arenaz

Tuesday, November 7

8:00	Opening Remarks	Mark Arenaz
8:05	Licensing Strategy Discussion	Phil Wheatley/Paul Harrington
9:05	Breakout Sessions	
	- Transportation System	Tom Hill (Moderator)
	- Compliance Plans	Bill Hurt (Moderator)
10:00	Break	
10:15	Summation of Transportation Session	Tom Hill
10:25	Summation of Compliance Plan Session	Bill Hurt
10:45	Site QARD Implementation	Bob Davis
11:20	High Level Waste Program/NSNFP Synergy	Denis Koutsandreas
11:45	Source Term Path Forward	Henry Loo
12:20	Lunch	
1:40	DOE SNF Steering Group Meeting	
1:40	DOE Contractor Breakout Meeting	
4:30	EM Safeguards Breakout Meeting	
5:00	EM Licensing Breakout Meeting	

Wednesday, November 8

8:00	Opening Remarks	Mark Arenaz
8:05	Summary of Steering Group Breakout Session	Mark Arenaz/Andy Griffith
8:35	Summary of M&O Breakout Session	Phil Wheatley
8:45	Summary of the EM Licensing Breakout Meeting	Paul Harrington
9:00	Integrated Repository Receipt Schedule Update	Corey Beebe
9:15	Nuclear Materials Focus Area	Phil Wheatley
9:30	EM/RW Integrated Schedule	Sheryl Morton
9:45	NSNFP Technical Workscope	Bill Hurt
	- Advanced Neutron Absorber Development	
	- Multi-Detector Analysis (MDAS) System	
10:30	Path Forward and Action Items	
11:00	Adjourn	

Wednesday Afternoon - Specialty Meetings

1:30	Release Rate Testing
1:30	Other technical exchanges as necessary

ACTION ITEMS

#	Action Item	Designee	Due Date
1	Contact Frank Schwartz (DOE Contracting Officer) regarding the Foster Wheeler design review process. Ensure the canister specifications remain intact and involvement with RW is maintained.	NSNFP/Mark Arenaz	11/20/00 Complete
2	Support the INEEL needs request to: • Negotiate final SNF receipt requirements with the YMO. - Physical packaging requirements for transportation - Characterization requirements - Documentation requirements. • Assist in determination of the complexwide SNF receipt requirements. • Assist in development of treatment alternatives for problematic SNF. • Help to champion a reasoned approach to proposed requirements for safeguarding irradiated nuclear fuel that is not self-protecting.	NSNFP	
3	Provide information and continue discussions with SRS and Hanford on the Integrated Repository Receipts Schedule. The schedule may impact the type and location of new loading facilities.	NSNFP	
4	Let the sites and the NSNFP know what information (data) is needed from them for the design process.	OCRWM	
5	Provide the Technical Needs Document to EM. (Action assigned in the Licensing Strategy Breakout meeting)	OCRWM	
6	Analyze variances between QARD revisions. Summarize the differences and applicability to EM or RW. • Request impacts from the sites. • Help with analysis as appropriate. • Determine intent of revisions. • RW will perform analysis and distribute the results concerning exactly which current QARD specifications apply to RW, EM, or both organizations.	NSNF QAP/ Bob Davis OCRWM QA/Bob Clark	

7	Talk with ANL-W about their plans to use the shipping facility at INTEC and to cotransport their ceramic HLW form with INTEC SNF to the repository. Coordinate with INEEL.	Cory Beebe	
8	Check on the date for the call for proposals for NMFA. Determine if there is an opportunity to coordinate the next NSNFP Strategy meeting with the NMFA.	NSNFP/Phil Wheatley	
9	Communicate across the complex the IPABS needs from the sites. Can the needs be placed on the NSNFP home page?	NSNFP/Phil Wheatley	
10	Validate/modify the dates on the EM/RW schedule and forward to Sheryl Morton.	OCRWM/ Paul Harrington	
11.	E-mail electronic presentation slides to Lori Braase.	Presenters	

ISSUES

- What type of detailed information will be needed for FRR fuel?
- Hanford is starting to package SNF in MCOs. Changes to the QARD will cause significant problems. Same concern with HLW program ("grandfather" issue).
- At the working level, communication between RW and EM is good, but it is not at the higher management levels.

ACRONYMS

ANL	Argonne National Laboratory
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BOL	beginning of life
CFR	Code of Federal Regulation
CVDF	Cold Vacuum Drying Facility (Hanford)
DBE	design basis event
DNFSB	Defense Nuclear Facility Safety Board
DOE	Department of Energy
DWP	detailed work plans
EIS	environmental impact statement
EPRI	Electric Power Research Institute
GOTH	Generation of Thermal Hydraulics
HIC	high integrity can
HLW	high level waste
HQ	DOE Headquarters
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
IPABS	Integrated Planning, Accountability, and Budgeting System
LA	License Application for the repository at Yucca Mountain
LWBR	Light Water Breeder Reactor
MCO	multi-canister overpack
MGR	Mined Geologic Repository
NMFA	Nuclear Materials Focus Area
MOA	memorandum of agreement
NRC	Nuclear Regulatory Commission
OCRWM (RW)	Office of Radioactive Waste Management
ORNL	Oak Ridge National Laboratory
PIE	Post Irradiation Examination
PNNL	Pacific Northwest National Laboratory
QARD	Quality Assurance Requirements Document
SNF	spent nuclear fuel
SNL	Sandia National Laboratory
SR	Site Recommendation (Yucca Mountain)
SRS	Savannah River Site
TBD	to be determined
TSF	Treatment and Storage Facility (SRS)
WASRD	Waste Acceptance System Requirements Document
WIPP	Waste Isolation Pilot Plant

NATIONAL SPENT NUCLEAR FUEL PROGRAM
STRATEGY MEETING SUMMARY
November 6-8, 2000

The following presentations are available electronically on the NSNFP WEB page at http://nsnfp.inel.gov. The information below represents discussion highlights or questions raised during the presentations.

SNF Site Issues, Activities, Strategies – Hanford
Bob Holt

Q: Is the MCO sealed under water?
A: Yes. The MCO is sealed under water in the basin. The water is then forced out during the cold vacuum drying process.

Q: What is the path forward for the K-Basin sludge?
A: Hanford has a signed agreement with WIPP to accept the K-Basin sludge.

SNF Site Issues, Activities, Strategies – INEEL
Mary Willcox

Q: How do you know Foster Wheeler will use the NSNFP standardized canister design?
A: Foster Wheeler will be designing, fabricating, and using the NSNFP standardized canister specifications as incorporated into their contract.

- The Preliminary Design Specification for the Department of Energy Standardized Spent Nuclear Fuel Canister, DOE/SNF/REP-011, Rev. 3, dated August 17, 1999 was an attachment to Section C Description/Specifications/Statement of Work of the FW contract.
- Foster Wheeler will prepare the NRC license application and obtain an acceptance review of the application by the NRC. Foster Wheeler will actively seek and support the NRC licensing application process and review and incorporate required changes into the final design to ultimately obtain an NRC license.
- As a contract of current public interest, the Foster Wheeler contract can be found on the Internet http://www.id.doe.gov/doeid/PSD/proc-div.html.
- Information: Contract change: A modification to the contract was issued in August 2000. Foster Wheeler can submit and deliver a fuel movement plan up to one year prior to the planned start of operations. The prior language required them to submit the fuel movement plan no later than 3 months from the effective data of contract award.

Q: Will RW be kept informed and have the opportunity to review Foster Wheeler's standardized canister design?

Action 1: The NSNFP will contact Frank Schwartz (DOE-ID Project Manager) regarding the Foster Wheeler design review process. Ensure the canister specifications remain intact and involvement with RW is maintained.

Q: How is "road ready" defined in the Foster Wheeler contract?
A: The dry transfer facility and the ISFSI shall comply with NRC requirements for dry storage and shipping in accordance with Title 10 Parts 20, 21, 70, 71, and 72 and associated referenced regulations of the Code of Federal Regulations. The spent fuel will be received by Foster Wheeler, inspected, characterized as necessary, prepared for repackaging and placed in standardized canisters. The loaded standardized canisters will be dried, inerted, and sealed, and will require no further processing prior to shipment to the repository.

The scope of work for the Foster Wheeler contract includes providing a conceptual design only for a rail-based transportation system for unrestricted shipment of the packaged spent nuclear fuel that is fully compatible with the storage and handling system at the dry transfer facility. Neither licensing nor fabrication of this separate transportation system is contained within the scope of the procurement.

Action 2: The NSNFP should determine how to support the INEEL needs request.
- Negotiate final SNF receipt requirements with the YMO.
- Assist in determination of the complex-wide SNF receipt requirements.
- Assist in development of treatment alternatives for problematic SNF.
- Help to champion a reasoned approach to proposed requirements for safeguarding irradiated nuclear fuel that is not self-protecting.

SNF Site Issues, Activities, Strategies – SRS

Jean Ridley

- Critical decisions for TSF will require HQ approval.
  - The Operational Readiness Assessment may become a Headquarters milestone for startup.

SRS needs:

a. More information is needed on the Integrated Repository Receipts Schedule. There are plans at SRS to build a joint loading facility with the HLW program. There could be significant impacts with this facility and transportation of SRS SNF and HLW to Yucca Mountain.
   - Hanford is looking at building a heavy-haul facility for transportation of the MCOs to Yucca Mountain. They have the same concerns with the Integrated Transportation Schedule.

b. The TSF is expected to drop below the flat funding line.

- The NSNFP and the sites need to build on efficiencies within/between facilities and within/between programs.

Action 3: NSNFP will provide information and continue discussions with SRS and Hanford on the Integrated Repository Receipts Schedule. The schedule may impact the type and location of new loading facilities.

Yucca Mountain Schedule and Path Forward

Marty Bryan

- Site Recommendation
  - Comments are being incorporated; however, the design continues to evolve.
  - Configuration management issue to bring the EIS, SR, and LA "in sync."
  - It is critical that the public sees one document.

- The final EIS will accompany the Site Recommendation, but will not be issued prior.

WASRD Comment Resolution Discussion

Markus Popa

Q: What is the feel for the types of comments you have received?
A: The amount and type of comments forced us to concentrate on the most important things.

Q: Are the comments that were not incorporated likely to cause problems later?
A: Some comments were prescriptive and detailed. We tried to be more general and less detailed so we could focus on requirements and regulations.

Q: What about the types of data needed in the WASRD?
A: To the degree of information that we know we need, we can incorporate comments.
- We pulled the data needs and information requests out of the WASRD this time. Information is still needed, and will requested in a separate document. This should have no impact on this WASRD revision.

Q: How much does 10 CFR 63 and 10 CFR 93 affect the HLW program?
A: They should not affect the HLW acceptance criteria.

- For the next WASRD review, please focus on the technical correctness of your comments as they were incorporated. Also look at how comments on other sections impact your section.

Licensing Strategy Discussion

Paul Harrington

Data versus Technical Information

- QARD Glossary
  - Data is information developed as a result of scientific investigations.
  - Scientific investigation is any observation, identification, description, experimental study, or analysis and explanation of natural phenomena.
- AP-3.15Q Managing Technical Inputs
  - Technical Information is information that does not meet the definition of data, e.g., technical reports, analyses, calculation, external references, corroborating references, drawings, specifications.

Q: Will the level of accuracy be explained?
A: The Technical Needs Document does include a discussion of the degree of accuracy.
- In addition, the data needs request to the sites should include this information.

Action 4: OCRWM needs to let the sites and the NSNFP know what information (data) is needed from them for the design process.

Action 5: Provide the Technical Needs Document to EM. (Action also assigned in the Licensing Strategy Breakout meeting).

Q: What is the difference between the release rate and the dissolution rate?
A: The release rate is for preclosure safety analysis and is a percentage of fuel released. The dissolution rate is for post-closure and pertains to water inclusion and degradation.

EM Certification Strategy

Phil Wheatley

- Bounding values will need a basis and will be carried into the certification process.

Q: How do you handle an igneous event in Yucca Mountain?
A: It is treated like another event.
- The event tree is an example of tools we are using.
- We have not analyzed (developed the event tree) for the igneous event.
- There is a set of events that lie above the Probability Event Truncating Line (on the chart in the presentation). They have to be analyzed for consequences as well. The chart depicts probability and consequence.

Summary of the Transportation System Breakout Session

Tom Hill

- Need to elevate transportation cask costs up DOE management chain.
  - Transportation is not identified as a FY 2002 issue.
  - Three-week window of opportunity.

- Prepare white paper on transportation system funding approach.
  - Coordinate with HLW/RW for uniform front.
  - Coordinate with sites.
  - Look at HLW versus Copackaging shipments.

- Look for a placeholder for 2002 budget.

Q: Do the costs for the transportation system include co-transport of HLW with SNF to the repository?

A: The funding identified on the chart in the presentation was an estimate of the purchase price for a SNF cask. It does not include the cost of co-transport of HLW with DOE SNF.
- This needs to be part of the integration effort with HLW.

Summary of the DOE Site Compliance Plan Breakout Session

Bill Hurt

- Status of Compliance Plans
  - SRS and INEEL issued their compliance plans in January, and there were no comments as a result of an NSNFP review.
  - Hanford issued their compliance plan in July. NSNFP comments were submitted informally to Bruce Makenas.

- Status of WASRD
  - Comment resolutions accepted with contingence for further review. RW will reissue as a redraft schedule TBD.

- Impacts of Draft Licensing and Certification Strategy
  - Preliminary determination that SNF characteristics are information.
  - Preliminary agreement to control information under QARD Section 3, Design Control.
  - Source information needed to demonstrate compliance for criticality.
    - ⇒ BOL fissile mass, BOL enrichment, linear loading, information should be collected from the highest integrity documents available. Reactor SARS and fabrication specifications are viewed as very credible sources. Strict traceability is needed.

- Path Forward
  - No revisions to the guidance document are planned.
  - Provide current compliance plans to RW.
  - The sites should update compliance plans after next release of the WASRD. While the WASRD will continue to change, the licensing strategy will become firmer as RW goes through the SR review process.
  - The NSNFP will continue coordinating analyses/data being sent to RW (criticality source term, DBE, GOTH, RRT, etc.), but the sites should take the lead in collecting the raw data. The exact split on responsibilities needs to be negotiated.
  - Develop and document packaging strategies, basket configuration, canister length, etc. We desire to capture this data in the data base.
  - Sites should specifically address storage and transportation issues in the next update to their compliance plan.
  - Sites should collect source documents to support criticality analyses in the disposal configuration.
  - Sites should begin planning to control SNF data under QARD. This will eliminate loss of any existing data and ensure consistency in application of data.

Site QARD Implementation

Bob Davis

- The following sites have met the QA requirements:
  - SRS – under Revision 6
  - ORNL – under Revision 9
  - Hanford – under Revision 8
  - West Valley – under Revision 0

- The INEEL is expected to qualify in March 2001, under Revision 10.

- Adequate technical justifications are needed from the sites as to why they are working to different revisions of the QARD.

- The NRC provides “acceptance” of the QA Program.
  - They expect RW to operate under the current revision.
  - Approval for RW will come after the license is received.

Q: From the site’s viewpoint, there has not been any help with the funding to update their QA programs to the current revision. The justifications may not be technical as a basis, but they are real to the sites.

A: (from RW) Some of the past revision changes were meant for RW only, but it was not communicated to the sites. There have been few changes truly affecting

the sites. RW should make the determinations up front as to who should implement the revisions.

1. Implementation by RW only.
2. Implementation by the DOE sites.
3. Continue under the current revision if technical justification is provided.

Discussion:

- The DOE sites have more than one program. It would be easier if everyone across the DOE complex was working to the same QARD revision. There are impacts to procurement and acceptance by RW if the revisions are different.

- It is hard for the sites to even analyze the impacts of new revisions.

- The MOA signed by EM-1 includes the direction to study the impacts of QARD revisions. A portion of the designated funding is for managing the program.

Action 6: Analyze variances between QARD revisions. Summarize the differences and applicability to EM or RW.

- Request impacts from the sites
- Help with analysis as appropriate
- Determine intent of revisions.

Issue: Hanford is starting to package SNF in MCOs. Changes to the QARD will cause significant problems. Same concern with HLW program ("grandfather" issue).

Q: As a supplier of analysis under a certain revision, if the revision changes half way through the analysis, then what?

A: The scope of work was agreed to under a specific revision. If a new revision is issued and changes the scope of work, then renegotiate a new budget.

- Impacts of scope changes would have to be verified based on the new revision, which is the buyer's responsibility. (Assess the new revision.)

High Level Waste Program/NSNFP Synergy

Denis Koutsandreas

- NN will be producing a Pu Immobilized Waste Form.
  - They will provide the funding, build the plant, provide the documentation, and operate the facility until the process is complete and then NN will be dissolved.

Source Term Pathforward

Henry Loo

Q: How are you going to convince RW that the source term data are correct for bounding?

A: RW has been a participant in the development of this methodology. Thus, the process has been developed with RW's concurrence that if the process is followed, the DOE SNF source term will be conservative.

- The proposed process develops a source term that is qualified under the QARD, but the inputs to the process are not qualified. The inputs are the "existing data" per NUREG-1298 definition.
- The "existing data" will be from various sources such as existing reports, shipping data, etc., and were not acquired under the QARD.
- The templates were developed to cover all fuel types in the DOE inventory. Specifically, twenty-nine templates have been proposed to estimate the source term for the over 250 DOE fuel types. However, the NSNFP is working with the sites and RW to further reduce the number of templates required.
- The templates were developed based on parameters that impact the radionuclide inventories such as fuel type, reactor (moderator) type, burnup.
- For a number of templates (DOE SNF), there are existing PIE (Post Irradiation Examination) data. The plan is to use the PIE data to validate that the above process conservatively estimates the DOE SNF source term for these templates.
- The process requires judgment that the technical information used as inputs (from reports or shipping data, etc.) are acceptable (good enough) to select the correct template to estimate the source term for each fuel entry in the data base.
- Conservative assumptions are used to account for uncertainties and missing information.
- For a large quantity (It has been estimated that up to 97%) of the DOE SNF fuel types, defendable records exist.
- Four parameters help to select the templates used to bound each fuel entry in the data base (but the templates were developed from more than four parameters).
- For defense in-depth, the performance analysis shows that the bounding calculations will meet the regulatory requirement, even in the worse case (i.e., highest source term is assumed).

Q: What will you use in 2010 to show a specific canister is bounded?

A. The same process discussed above except the decay is to 2010 instead of 2030.

Q: Are you planning to measure the fuel after the canister is loaded? NRC requires the commercial sites to measure their fuels for burn-up. How does that requirement affect the DOE SNF?

A. No, at this time, there is no plan to measure the fuel after the canister is loaded. However, the NSNFP is developing a nondestructive assay (NDA) system that may be used to characterize a canister if needed. The NDA system is called the multi-detector analysis system (MDAS).

Because DOE-EM has no plan to take burnup credit on DOE SNF, there will be no need to measure the fuel after the canister is loaded because of burnup credit.

The source term developed using this proposed process should also be acceptable for waste acceptance and certification. However, the sites will have to certify that the fuels shipped are the fuels that were analyzed.

DOE Steering Group Review

Mark Arenaz

- Reviewed original charter of the DOE SNF Steering Group to the current organization.
- Determined membership of the Steering Group.
- Discussed communication issues.

Q. The senior level steering committee has not met since the October 1999 strategy meeting. Are we missing opportunities to communicate critical issues at a higher level?

A: There are many committees and management-type councils. We need to ensure there is value in the meetings.

Issue: At the working level, communication between RW and EM is good, but needs more integration at the higher management levels in both organizations.

Contractor Breakout Session

Phil Wheatley

- HQ Program Review – December 1st.
  - Videoconference available.
- Field Office Manager Meeting
- EM/RW Senior Steering Committee Meeting
- Information Sharing
  - Annual report – senior focus
  - Progress reports – 2 to 4 times per year
  - Master Logic and EM/RW interface schedule.
- Share Life Cycle Program Plans
  - The detail would be helpful for the Integrated Transportation Schedule.

- Site Interface.
- There may be some inconsistencies in the assumptions in the compliance plans (e.g., the opening date of the repository).

- Develop additional fact sheets based on site activities.

- Data versus information
  - Sound technical useful facts and figures

Licensing Strategy Breakout Session

Paul Harrington

- A strategy is needed for all of the DOE SNF.
  - ~97% have a path forward
  - ~3% are unknowns or "cats and dogs."

- Address the ~3% of unknowns with the high integrity can (HIC).
  - Certifications for the HIC
  - NRC is aware of the HIC
  - Risk analysis is the key.

LICENSING STRATEGY BREAKOUT PATH FORWARD

#	Action Item	Designee	Due Date
1	Send the current Draft Data/Technical Information Report to Paul Harrington.	Markus Popa	11/14/00
2	Review/edit the Draft Data/Technical Information Report and forward it to the NSNFP.	Paul Harrington	11/17/00
3	Modify the current strategy paper to include: a) The certification issues and the Verification of Applicability of DOE SNF Technical Information at Time of Waste Acceptance flow diagram. b) An update of the first issue paper (Data versus Technical Information). Send to Mark Arenaz, Tim Gunter, Nancy Slater, and Andy Griffith.	Don Beckman	11/27/00
4	Review the PMPs from the NSNFP and identify interfacing points with YMP Procedures. • Identify how traceability is maintained. • Identify how the flow of information is accommodated. Send to Mark Arenaz, Tim Gunter, and Andy Griffith	Don Beckman	11/27/00

5	Provide comments on the strategy paper and PMP review and send them to Tim Gunter. (Remember to think strategically on comments).	Reviewers	12/4/00
6	Consolidate comments on the strategy paper and PMP review and forward to Don Beckman.	Tim Gunter	12/5/00
7	Incorporate site's comments and issue final strategy paper and PMP review.	Don Beckman	12/15/00
8	Provide the data summary reports on a few samples of criticality data packages on specific fuels for Paul Harrington and Bob Clark.	John Clouet will obtain copies from Wesley Davis.	11/8/00
9	Perform a technical and quality review on the criticality data package samples. Respond to the NSNFP on the technical content and application of QA program on the samples.	Bob Clark/ Paul Harrington	12/01/00
10	Organize an NRC meeting for February 2001.	Tim Gunter	

Integrated Repository Receipts
Draft Schedule for Shipping DOE SNF & HLW to the Repository
Corey Beebe

- A draft integrated schedule for shipping DOE SNF and HLW to the repository was submitted to RW in February 2000.
- The schedule assumes the MGR will begin accepting DOE material in 2010.
- The emplacement rate at Yucca Mountain is assumed to be 160 waste packages per year.
- The assumption for the maximum staging limit is 1,100 canisters.
- Cost impact analyses by site are due December 1, 2000. This analysis will answer the question: "What will it take to implement the draft schedule?"
- Results will be reviewed during the December–January timeframe.
- In February or March of 2001, a workshop will be held to review the schedule and obtain concurrence from the sites.
- The next step will be to update site baselines.

Q: The Navy has accelerated their shipment schedule and provided comments to EM and RW.
A: The Navy's comments have been incorporated into the current schedule.

Q: Idaho is planning for separate shipments of HLW and SNF to the repository, but it looks like co-shipping may be a possibility?
A: Idaho is planning for separate shipments, with a possibility of co-shipping after 2020.

Q: ANL-W has been planning to ship their HLW with the INEEL SNF from the shipping facility at INTEC

Action 7: Corey Beebe will talk with ANL-W about the plans to use the shipping facility at INTEC and to co-ship their HLW glass with INTEC SNF to the repository. This will be coordinated with the INEEL.

Nuclear Materials Focus Area

Phil Wheatley

- Four product lines:
  - Transportation – Ken Sorensen (Sandia)
  - Storage – Dave Robertson (Hanford)
  - Stabilization – Alice Murray (SRS)
  - SNF – Phil Wheatley (INEEL)

- Focus areas are a good mechanism for projects to get visibility for their needs.

Q: Is it possible to allow for additional lead-time for the sites when you make a call for needs

Q: Are the focus areas funded multi-year? Would this be helpful or hindering?
A: Yes: The key is the ability to increase funding.

- Site deployment potential or commitment is the key to prioritization of work packages (based on the PBS manager's score).

Q: Would the NSNFP consider helping the sites develop their Technical Development Proposals? It is important for maximum scoring to show the key criteria.
A: The NSNFP will work with the PBS managers on work package ranking. In addition, they will identify and bring together the proposals from other labs (pairing researchers and sites needs).
  - Experienced proposal writers should be used.

Q: Can the NSNFP and the NMFA coordinate efforts to use the NSNFP Strategy Meeting as a sounding board for their proposals

Action 8: Check on the date for the call for proposals for NMFA. Determine if there is an opportunity to coordinate the next NSNFP Strategy meeting with the NMFA.

Q: Can the sites get access to the needs from the other sites?

Action 9: Communicate across the complex the IPABS needs from the sites. Can the needs be placed on the NSNFP home page?

EM/RW Integrated Schedule

Sheryl Morton

- This is a working schedule and not meant for public distribution.
- The detail on the schedule is important for DWP. Target dates are needed.

Q: Are you planning on adding more detail to the schedule? Do not add too much to the schedule that may detract from the major milestones.
A: Two levels of the schedule may be needed.

Action 10: RW/Paul Harrington will validate/modify the dates on the EM/RW schedule and forward it to Sheryl Morton.

NSNFP Technical Workscope

Bill Hurt

A. Drying Standard (Matt Ebner)
- A drying standard is being developed to estimate dryness requirements for the standard canister.
- Resolve "how dry is dry."
- NSNFP effort with representation by PNNL, INEEL, NRC, EPRI, Industry (e.g., Virginia Power), RW, and consultants.
- The drying standard is meant to be a flexible drying guide.
- Potential measurement methods.
- ASTM guide form.
- A first draft should be ready for the ASTM meeting in January 2001, in Reno, Nevada.

Idea: Consider working with the NMFA to gain support.

B. Advanced Neutron Absorbers

Q: To which canisters does this apply?
A: Many (all) require long-term capability in the repository.

Q: Is RW looking at adding absorbers to applicable commercial SNF fuel?
A: Yes, some commercial waste packages require neutron poisons.

C. MDAS

Issue 1: Accelerator at ANL-W is available for measurement testing, but funding was not available FY 2001 to use it. The plan is to take a small sample of SNF to ORNL for minimal testing.

Issue 2: It is hard on the equipment and facility to operate the accelerator in startup, shutdown mode. Startup at 9 a.m. and shutdown at 3 p.m. caused high voltage power impacts to the facility in the past. The accelerator needs 18 hours after startup to perform optimally.

Distribution

John Abrefah
Donald Armour
Doyle Batt
Corey Beebe
Robert Benedict
Richard Blaney
Robert Blyth
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Donald Bridges
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Marty Bryan
Kenneth Bulmahn
Jim Carlson
Kenneth Chacey
Bob Clark
William Clark
John Clouet
Ray Conatser
William Condon
Paul Daniel
Wesley Davis
Robert Davis
Brian DeMonia
Carl Detrick
Carl DiBella
Peter Dirkmaat
Don Doherty
James Duguid
Matt Ebner
Howard Eckert
Chris Einberg
Robert Einziger
Larry Ferrell
Denny Fillmore
James Flaherty
Ed Fujita
April Gil
Scott Gladson
Margaret Goldberg
Andrew Griffith
Timothy Gunter
Dinesh Gupta
Paul Harrington
Thomas Hill
Frank Holmes
Robert Holt
David Huizenga
Natraj Iyer
Randall Kaltreider
Robert Korenke
Denis Koutsandreas
James Linhart
Phil Loscoe
Virgil Lowery
Alan Luptak
Neal Mackay
Bruce Makenas
Chandra Majumdar
Roger McCormack
Sheryl Morton
Robert Pahl
William Parmely
Kenneth Picha
Randall Ponik
Markus Popa
Joe Price
Ronald Ramsey
Jay Reynolds
David Rhodes
Jean Ridley
Tom Sanders
Stephen Schuermann
John Scorah
Michael Scott
Colleen Shelton-Davis
Nancy Slater
William Smoot
Ken Sorenson
Bill Swift
Jay Thomas
John Tseng
Douglas Turner
John Vlahakis
Phil Wheatley
Mary Willcox
Donald Wille
William Yeniscavich
David Zabransky